

## Title (en)

GEAR BOX WITH VARIABLY COUPLED OSCILLATION AND ROTATION FOR KNEADING MACHINE

## Title (de)

GETRIEBEKASTEN MIT VARIABEL GEKOPPELTER SCHWINGUNG UND ROTATION FÜR EINE KNETMASCHINE

## Title (fr)

BOÎTE À ENGRENAGES À OSCILLATION ET ROTATION COUPLÉES DE MANIÈRE VARIABLE POUR MACHINE À PÉTRIR

## Publication

**EP 2605662 A4 20160713 (EN)**

## Application

**EP 11818670 A 20110816**

## Priority

- US 85700110 A 20100816
- US 2011047937 W 20110816

## Abstract (en)

[origin: US2012039145A1] A gear box for a reciprocating kneader. A primary rotational gear is attached to a gear box primary shaft and rotates in concert therewith. A secondary rotational gear is engaged with the primary rotation gear and rotates therewith. A secondary shaft is attached to the secondary rotational gear and rotates therewith. A primary oscillation gear is attached to the gear box primary shaft and rotates therewith. A secondary oscillation gear is rotationally engaged with the primary oscillation gear and rotates on the secondary shaft. An eccentric is coupled to the secondary oscillation gear and rotates in concert therewith. A yoke is engaged with the eccentric and oscillates on an axis perpendicular to the secondary shaft in response to the lobe. The gearbox secondary shaft moves along its axis in concert with yoke oscillation. A housing is pivotally attached to the yoke and pivotally attached to a casing at a casing.

## IPC 8 full level

**B01F 7/08** (2006.01); **B01F 11/00** (2006.01); **F16H 25/12** (2006.01); **F16H 37/16** (2006.01)

## CPC (source: EP US)

**A21C 1/1465** (2013.01 - US); **B01F 27/722** (2022.01 - EP US); **B01F 27/723** (2022.01 - EP US); **B01F 31/401** (2022.01 - EP US); **B29B 7/36** (2013.01 - EP US); **B29B 7/423** (2013.01 - EP); **B29B 7/428** (2013.01 - EP); **B29B 7/429** (2013.01 - EP); **B29B 7/58** (2013.01 - EP); **B29B 7/80** (2013.01 - US); **B29C 45/50** (2013.01 - US); **B29C 48/252** (2019.01 - EP); **F16H 25/125** (2013.01 - EP US); **F16H 37/16** (2013.01 - EP US); **B29C 2045/5084** (2013.01 - US); **Y10T 74/18024** (2015.01 - EP US); **Y10T 74/19642** (2015.01 - EP US)

## Citation (search report)

- [A] CH 576086 A5 19760531 - BUSS AG
- [XA] US 4004788 A 19770125 - RONNER FRITZ
- See references of WO 2012024307A2

## Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

## DOCDB simple family (publication)

**US 2012039145 A1 20120216; US 8807825 B2 20140819;** BR 112013003770 A2 20160531; BR 112013003770 B1 20180731; CA 2808122 A1 20120223; CA 2808122 C 20160531; CA 2908468 A1 20120223; CA 2908468 C 20170509; CN 103153069 A 20130612; CN 103153069 B 20150225; EP 2605662 A2 20130626; EP 2605662 A4 20160713; EP 2605662 B1 20180110; JP 2013540571 A 20131107; JP 2014240067 A 20141225; JP 5665990 B2 20150204; MX 2013001625 A 20130605; MX 2022011398 A 20221013; MX 2022013349 A 20221213; MX 339725 B 20160607; SG 187825 A1 20130328; US 10611055 B2 20200407; US 2014102232 A1 20140417; US 2015124551 A1 20150507; US 2017297226 A1 20171019; US 2021053252 A1 20210225; US 9566719 B2 20170214; US 9592624 B2 20170314; WO 2012024307 A2 20120223; WO 2012024307 A3 20120531

## DOCDB simple family (application)

**US 85700110 A 20100816;** BR 112013003770 A 20110816; CA 2808122 A 20110816; CA 2908468 A 20110816; CN 201180048330 A 20110816; EP 11818670 A 20110816; JP 2013524930 A 20110816; JP 2014132640 A 20140627; MX 2013001625 A 20110816; MX 2022011398 A 20130208; MX 2022013349 A 20130208; SG 2013010517 A 20110816; US 2011047937 W 20110816; US 201314107023 A 20131216; US 201414454242 A 20140807; US 201715457409 A 20170313; US 202016837378 A 20200401